INTERNATIONAL SEARCH REPORT

International application No.

A 67 1			FC17USU3/1U303	
A. CLASSIFICATION OF SUBJECT MATTER IPC(7): B66B 7/04 US CL: 187/410 According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 187/410, 409, 414				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where	appropriate, of the releva	nt passages	Relevant to claim No.
X	US 5,544,722 A (MCKENZIE) 13 August 1996, Figures 1-7, column 2, lines 16-column 3, line 42.			1-6, 9-13
X	US 5,107,963 A (ROCCA et al) 28 April 1992, abstract, Figures 1-4.			1 and 2
х'	US 6,006,867 A (RICHTER et al) 28 December 1999, Figures 1-5, column 2, lines 46-column 5, line 5.			1-4, 9
х	US 6,050,370 A (JUNG) 18 April 2000, Figure 2.			1
Further	documents are listed in the continuation of Box C.	See patent far	mily annex.	
* Sp	ecial categories of cited documents:			national filing date or priority
	defining the general state of the art which is not considered to be ar relevance	date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E" carlier app	olication or patent published on or after the international filing date	"X" document of particular relevance; the claime considered novel or cannot be considered to when the document is taken alone "Y" document of particular relevance; the claime considered to involve an inventive step when combined with one or more other such document of particular relevance; the claime considered to involve an inventive step when		
	which may throw doubts on priority claim(s) or which is clied to the publication date of another citation or other special reason (as			when the document is
	referring to an oral disclosure, use, exhibition or other means		being obvious to a person skilled in the art	
"P" document priority da	published prior to the international filing date but later than the te claimed	"&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report		
	04 (13.01.2004)	Z JAN ZODA		
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	703/305-3230	-		